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Steven F. Borsand

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11/13/2008

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EXAMINER

KANERVO, VIRPI H

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/676,641	<b>Applicant(s)</b> BORSAND, STEVEN F.	
	<b>Examiner</b> VIRPI H. KANERVO	<b>Art Unit</b> 3691	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-16 and 18-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-16 and 18-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of the Claims***

1. Claims 1, 3-16, and 18-29, are presented for examination. Applicant filed an amendment on 07/01/2008 cancelling claims 2 and 17; adding new claims 28 and 29; and amending claims 1, 3-4, 8, 13, 16, and 22. In light of Applicant's amendments and arguments, Examiner withdraws the rejection of claims 1, 3-16, and 18-27. However, new grounds of rejection are established in the instant Office action for claims 1, 3-16, and 18-29.

### ***Response to Arguments***

2. In light of Applicant's cancellation of claims, Examiner's previous objections to claims 2 and 17 is moot.
3. Examiner withdraws the rejection of claims 1, 3-16, and 18-27. However, new grounds of rejection are established in the instant Office action for claims 1, 3-16, and 18-29.

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1 and 3-15 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Claim 1 is independent claim, and it is directed to method that is not linked to another statutory class, *i.e.*, it is directed to non-statutory subject matter. Method claim merely having another statutory class in preamble in absence of another statutory class does not render the claims statutory. Therefore, claim 1 is rejected as directed to non-statutory subject matter. Claims 3-15 all depend from claim 1. None of the dependent claims 3-15 correct the non-statutory subject matter in claim 1. Therefore, claims 3-15 are also rejected for being directed to non-statutory subject matter.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in § 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3, 9-12, 16, 23-25, and 28-29, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nordlicht (2002/0194115 A1) in view of Argust (2003/0009387 A1).

As to claims 1 and 28, Nordlicht shows receiving a dynamic quantity order at an electronic exchange (Nordlicht: page 1, ¶ 6), wherein the dynamic quantity order is received in a message comprising a price and a desired order quantity (Nordlicht: page 6, ¶ 85), wherein the dynamic quantity order is associated with an order quantity (Nordlicht: page 6, ¶ 85), wherein the order quantity is initially the desired order quantity (Nordlicht: page 5, ¶ 78), and wherein the dynamic quantity order is sorted based on the price into an order queue (Nordlicht: page 6, ¶ 83); and dynamically adjusting the order in the order queue at the price (Nordlicht: page 5, ¶ 78).

Nordlicht does not show increasing the order quantity to an increased order quantity such that a possibility of the desired order quantity getting filled is increased; and adjusting the order quantity based on a total quantity. Argust shows increasing the order quantity to an increased order quantity such that a possibility of the desired order quantity getting filled is increased (Argust: page 3, ¶ 28); and adjusting the order quantity based on a total quantity (Argust: page 3, ¶ 28). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Nordlicht by increasing the order quantity to an increased order quantity such that a possibility of the desired order quantity getting filled is increased; and adjusting the order quantity based on a total quantity of Argust in order to reduce the amount data transmitted when the data is only transmitted when changes occur (Argust: page 2, ¶ 14).

As to claims 16 and 29, Nordlicht shows sending a dynamic quantity order from a client device to an electronic exchange (Nordlicht: page 1, ¶ 6), wherein the dynamic quantity order is sent in a message comprising a price and a desired order quantity to be filled (Nordlicht: page 6, ¶ 85); receiving the dynamic quantity order at the electronic exchange (Nordlicht: page 5, ¶ 78), wherein the dynamic quantity order is associated with an order quantity (Nordlicht: page 6, ¶ 85), wherein the order quantity is initially the desired order quantity (Nordlicht: page 5, ¶ 78); placing the dynamic quantity order in a pro-rata order queue (Nordlicht: page 5, ¶ 78); and wherein the dynamic quantity order is sorted based on the

price into an order queue (Nordlicht: page 6, ¶ 83); and dynamically adjusting the order in the order queue at the price (Nordlicht: page 5, ¶ 78).

Nordlicht does not show increasing the order quantity of the dynamic quantity order such that a possibility of the desired order quantity getting filled is increased; and adjusting the order quantity based on a total quantity. Argust shows increasing the order quantity of the dynamic quantity order such that a possibility of the desired order quantity getting filled is increased (Argust: page 3, ¶ 28); and adjusting the order quantity based on a total quantity (Argust: page 3, ¶ 28). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Nordlicht by increasing the order quantity of the dynamic quantity order such that a possibility of the desired order quantity getting filled is increased; and adjusting the order quantity based on a total quantity of Argust in order to reduce the amount data transmitted when the data is only transmitted when changes occur (Argust: page 2, ¶ 14).

As to claim 3, Nordlicht in view of Argust shows all the elements of claim 1. Nordlicht also shows that the order queue is processed by the electronic exchange such that orders are filled based on a pro-rata priority (Nordlicht: page 6, ¶ 80).

As to claim 9, Nordlicht in view of Argust shows all the elements of claim 1. Nordlicht also shows that the order quantity associated with the dynamic quantity order is increased at the electronic exchange (Nordlicht: page 6, ¶¶ 79-80).

As to claims 10 and 23, Nordlicht in view of Argust shows all the elements of claims 1 and 16. Nordlicht also shows detecting a filled order quantity associated with the dynamic quantity order (Nordlicht: page 5, ¶ 78); determining that the filled order quantity is not lower than the desired order quantity of the dynamic quantity order (Nordlicht: page 6, ¶ 78); and attempting to delete a remaining order quantity associated with the increased order quantity (Nordlicht: page 6, ¶ 78).

As to claims 11 and 24, Nordlicht in view of Argust shows all the elements of claims 1 and 16. Nordlicht also shows detecting a filled order quantity associated with the dynamic quantity order (Nordlicht: page 5, ¶ 78); determining that the filled order quantity is lower than the desired order quantity of the dynamic quantity order (Nordlicht: page 6, ¶ 78); and dynamically adjusting the increased order quantity such that a possibility of a remaining portion of the desired order quantity being filled is increased (Nordlicht: pages 5-6, ¶¶ 78-79).

As to claims 12 and 25, Nordlicht in view of Argust shows all the elements of claims 11 and 24. Nordlicht also shows that the increased order quantity is dynamically adjusted based on a new order quantity in the order queue at the price (Nordlicht: page 6, ¶ 80).

8. Claims 4, 7-8, 19, and 22, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nordlicht in view of Argust, and further in view of Mastman (2002/0133447 A1).

As to claim 4, Nordlicht in view of Argust shows all the elements of claim 3. Nordlicht does not show that when the dynamic quantity order is received at the electronic exchange, assigning a first weight parameter to the dynamic quantity order based on the desired order quantity and the total order quantity in the order queue. Mastman shows that when the dynamic quantity order is received at the electronic exchange, assigning a first weight parameter to the dynamic quantity order based on the desired order quantity and the total order quantity in the order queue (Mastman: page 1, ¶ 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Nordlicht by when the dynamic quantity order is received at the electronic exchange, assigning a first weight parameter to the dynamic quantity order based on the desired order quantity and the total order quantity in the order

queue of Mastman in order to achieve the programmed calculation (Mastman: page 1, ¶ 5).

Nordlicht in view of Mastman does not show estimating a potential order quantity that will be filled in the order queue at the price; and increasing the order quantity for the dynamic quantity order based on the estimated potential order quantity. Argust shows estimating a potential order quantity that will be filled in the order queue at the price (Argust: page 3, ¶ 28); and increasing the order quantity for the dynamic quantity order based on the estimated potential order quantity (Argust: page 3, ¶ 28). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Nordlicht in view of Mastman by estimating a potential order quantity that will be filled in the order queue at the price; and increasing the order quantity for the dynamic quantity order based on the estimated potential order quantity of Argust in order to reduce the amount data transmitted when the data is only transmitted when changes occur (Argust: page 2, ¶ 14).

As to claim 7, Nordlicht in view of Argust, and further in view of Mastman, shows all the elements of claim 4. Nordlicht also shows that the step of estimating the potential order quantity is based on a default set by the electronic exchange (Nordlicht: page 7, ¶ 85; see “Underlying Quantity”).

As to claim 8, Nordlicht in view of Argust, and further in view of Mastman, shows all the elements of claim 4. Nordlicht in view of Argust does not show that when the order quantity associated with the dynamic quantity order is increased, assigning a second weight parameter to the dynamic quantity order, wherein the second weight parameter is determined based on the increased order quantity and a new total order quantity in the order queue at the price. Mastman shows that when the order quantity associated with the dynamic quantity order is increased, assigning a second weight parameter to the dynamic quantity order, wherein the second weight parameter is determined based on the increased order quantity and a new total order quantity in the order queue at the price (Mastman: page 1, ¶ 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Nordlicht in view of Argust by when the order quantity associated with the dynamic quantity order is increased, assigning a second weight parameter to the dynamic quantity order, wherein the second weight parameter is determined based on the increased order quantity and a new total order quantity in the order queue at the price of Mastman in order to achieve the programmed calculation (Mastman: page 1, ¶ 5).

As to claim 19, Nordlicht in view of Argust shows all the elements of claim 16. Nordlicht does not show that when the dynamic quantity order is received at the electronic exchange, assigning a first weight parameter to the dynamic quantity order based on the desired order quantity and the current total available order quantity in the pro-rata order queue at the price. Mastman shows that when the dynamic quantity order is received at the electronic exchange, assigning a first weight parameter to the dynamic quantity order based on the desired order quantity and the current total available order quantity in the pro-rata order queue at the price (Mastman: page 1, ¶ 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Nordlicht by when the dynamic quantity order is received at the electronic exchange, assigning a first weight parameter to the dynamic quantity order based on the desired order quantity and the current total available order quantity in the pro-rata order queue at the price of Mastman in order to achieve the programmed calculation (Mastman: page 1, ¶ 5).

Nordlicht in view of Mastman does not show calculating an estimated order quantity that will potentially be filled in the order queue at the price; and increasing the order quantity of the dynamic quantity order so that if the estimated order quantity will be filled, the desired order quantity of the dynamic quantity order will be filled. Argust shows estimating a potential order quantity that will be filled in the order queue at the price (Argust: page 3, ¶ 28); and

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increasing the order quantity of the dynamic quantity order so that if the estimated order quantity will be filled, the desired order quantity of the dynamic quantity order will be filled (Argust: page 3, ¶ 28). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Nordlicht in view of Mastman by calculating an estimated order quantity that will potentially be filled in the order queue at the price; and increasing the order quantity of the dynamic quantity order so that if the estimated order quantity will be filled, the desired order quantity of the dynamic quantity order will be filled of Argust in order to reduce the amount data transmitted when the data is only transmitted when changes occur (Argust: page 2, ¶ 14).

As to claim 22, Nordlicht in view of Argust, and further in view of Mastman, shows all the elements of claim 19. Nordlicht in view of Argust does not show that when the order quantity associated with the dynamic quantity order is increased, assigning a second weight parameter to the dynamic quantity order, wherein the second weight parameter is determined based on the increased order quantity and a new current total order quantity in the order queue at the price. Mastman shows that when the order quantity associated with the dynamic quantity order is increased, assigning a second weight parameter to the dynamic quantity order, wherein the second weight parameter is determined based on the increased order quantity and a new current total order quantity in the order queue

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at the price (Mastman: page 1, ¶ 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Nordlicht in view of Argust by when the order quantity associated with the dynamic quantity order is increased, assigning a second weight parameter to the dynamic quantity order, wherein the second weight parameter is determined based on the increased order quantity and a new current total order quantity in the order queue at the price of Mastman in order to achieve the programmed calculation (Mastman: page 1, ¶ 5).

9. Claim 18 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nordlicht in view of Argust, and further in view of Drolet (2002/0147622 A1).

As to claim 18, Nordlicht in view of Argust shows all the elements of claim 16. Nordlicht in view of Argust does not show that the dynamic order quantity further comprises a percentage associated with the estimated order quantity that will potentially be filled. Drolet shows that the dynamic order quantity further comprises a percentage associated with the estimated order quantity that will potentially be filled (Drolet: page 5, ¶ 62). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Nordlicht in view of Argust by the dynamic order quantity further comprising a percentage associated with the estimated order quantity that will potentially be filled of Drolet in order to improve market efficiency (Drolet: page 1, ¶ 12).

10. Claims 5-6 and 20-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nordlicht in view of Argust, further in view of Mastman, and further in view of Drolet.

As to claim 5, Nordlicht in view of Argust, and further in view of Mastman, shows all the elements of claim 4. Nordlicht in view of Argust, and further in view of Mastman, does not show that the dynamic quantity order further comprises a percentage associated with an estimated order quantity that will be filled in the order queue. Drolet shows that the dynamic quantity order further comprises a percentage associated with an estimated order quantity that will be filled in the order queue (Drolet: page 5, ¶ 62). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Nordlicht in view of Argust, and further in view of Mastman, by the dynamic quantity order further comprising a percentage associated with an estimated order quantity that will be filled in the order queue of Drolet in order to improve market efficiency (Drolet: page 1, ¶ 12).

As to claim 6, Nordlicht in view of Argust, further in view of Mastman, and further in view of Drolet, shows all the elements of claim 5. Nordlicht in view of Argust, and further in view of Mastman, does not show that the step of estimating the potential order quantity is based on the percentage. Drolet shows that the step of

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estimating the potential order quantity is based on the percentage (Drolet: page 5, ¶ 62). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Nordlicht in view of Argust, and further in view of Mastman, by the step of estimating the potential order quantity being based on the percentage of Drolet in order to improve market efficiency (Drolet: page 1, ¶ 12).

As to claim 20, Nordlicht in view of Argust, and further in view of Mastman, shows all the elements of claim 19. Nordlicht in view of Argust, and further in view of Mastman, does not show that the dynamic quantity order further comprises a percentage associated with an estimate of the order quantity that will be filled. Drolet shows that the dynamic quantity order further comprises a percentage associated with an estimate of the order quantity that will be filled (Drolet: page 5, ¶ 62). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Nordlicht in view of Argust, and further in view of Mastman, by the dynamic quantity order further comprising a percentage associated with an estimate of the order quantity that will be filled of Drolet in order to improve market efficiency (Drolet: page 1, ¶ 12).

As to claim 21, Nordlicht in view of Argust, further in view of Mastman, and further in view of Drolet, shows all the elements of claim 20. Nordlicht in view of Argust, and further in view of Mastman, does not show that the step of

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calculating is further based on the percentage. Drolet shows that the step of calculating is further based on the percentage (Drolet: page 5, ¶ 62). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Nordlicht in view of Argust, and further in view of Mastman, by the step of calculating being further based on the percentage of Drolet in order to improve market efficiency (Drolet: page 1, ¶ 12).

11. Claims 13-15 and 26-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nordlicht in view of Argust, and further in view of Hsu (2002/0186826 A1).

As to claim 13, Nordlicht in view of Argust shows all the elements of claim 1. Nordlicht in view of Argust does not show applying a fee to be paid by a trader associated with the dynamic quantity order for increasing the order quantity. Hsu shows applying a fee to be paid by a trader associated with the dynamic quantity order for increasing the order quantity (Hsu: page 1, ¶ 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Nordlicht in view of Argust by applying a fee to be paid by a trader associated with the dynamic quantity order for increasing the order quantity of Hsu in order to increase the revenues of the service provider (Hsu: page 1, ¶ 2).

As to claim 14, Nordlicht in view of Argust, and further in view of Hsu, shows all the elements of claim 13. Nordlicht in view of Argust does not show that at least a portion of the fee is to be paid to the electronic exchange. Hsu shows that at least a portion of the fee is to be paid to the electronic exchange (Hsu: page 1, ¶ 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Nordlicht in view of Argust by at least a portion of the fee being paid to the electronic exchange of Hsu in order to increase the revenues of the service provider (Hsu: page 1, ¶ 2).

As to claim 15, Nordlicht in view of Argust, and further in view of Hsu, shows all the elements of claim 13. Nordlicht also shows that the fee is to be paid when at least a portion of the order quantity is filled (Nordlicht: page 5, ¶ 78).

As to claim 26, Nordlicht in view of Argust shows all the elements of claim 16. Nordlicht in view of Argust does not show applying a fee to be paid by a trader associated with the dynamic quantity order. Hsu shows applying a fee to be paid by a trader associated with the dynamic quantity order (Hsu: page 1, ¶ 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Nordlicht in view of Argust by applying a fee to be paid by a trader associated with the dynamic quantity order of Hsu in order to increase the revenues of the service provider (Hsu: page 1, ¶ 2).

As to claim 27, Nordlicht in view of Argust, and further in view of Hsu, shows all the elements of claim 26. Nordlicht also shows that the fee is to be paid when at least a portion of the order quantity associated with the dynamic quantity order is filled (Nordlicht: pages 5-6, ¶ 78).

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bennett (2005/0075905 A1) discloses customizable automatic generation and ordering of a medical report summary.

Newbold (7,089,193 B2)) discloses multiple project scheduling system.

Piccioli (2002/0013756 A1) discloses method for predictive determination of financial investment performance.

Shapiro (2002/0091606 A1) discloses predictive automated routing system for securities trading.

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VIRPI H. KANERVO whose telephone number is 571-272-9818. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander G. Kalinowski can be reached on 571-272-6771. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Virpi H. Kanervo

/Alexander Kalinowski/

Supervisory Patent Examiner, Art Unit 3691